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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------|------------------|
| 10/770,258 | 02/02/2004 | Ming-Szu Chan | 10113711 | 9591 |
| 34283 | 7590 | 04/11/2005 | EXAMINER | |
| QUINTERO LAW OFFICE 1617 BROADWAY, 3RD FLOOR SANTA MONICA, CA 90404 | | | CHEN, WEN YING PATTY | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2871 | |

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/770,258 | Applicant(s) CHAN, MING-SZU | |
| | Examiner Wen-Ying P. Chen | Art Unit 2871 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Weindorf et al. (US 2002/0130985).

With respect to claims 1-3: Weindorf et al. discloses in Figure 3 a liquid crystal module comprising: a body (element 302), with a rectangular shape; and a circuit board (element 316) disposed on the body, having a plurality of lead wires, a plurality of openings (Paragraph 0025, where the openings are just the same as thermal vias and the wires being signal lines), an LED (Fig. 2, element 204) coupled to the lead wires, and a Zener diode (Fig. 4, element D1) coupled to the lead wires by welding through the openings, wherein the LED and the Zener diode are juxtaposed on the lead wires (Paragraph 0033, wherein the Zener diode is part of the LED control circuit).

As to claims 7-10: Weindorf et al. discloses in Figure 3 a liquid crystal module comprising: a body (element 302), with a rectangular shape; and a circuit board (element 316) disposed on the body, having a first side and a second side, a plurality of lead wires located between the first side and the second side, a plurality of openings (Paragraph 0025, where the openings are just the same as thermal vias and the wires being signal lines) formed on the first

Art Unit: 2871

side and the second side to expose the lead wires, an LED (Fig. 2, element 204) coupled to the lead wires through the openings on the first side, and a Zener diode (Fig. 4, element D1) coupled to the lead wires by welding through the openings on the second side, wherein the LED and the Zener diode are correspondingly located on the first and second side (Paragraph 0025, wherein the Zener diode is a part of the LED control circuit).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al. (US 2002/0130985) in view of Mizuno (US 6398560).

Weindorf et al. disclose all of the limitations set forth in claims 1 and 11, but lacks to specify that the liquid crystal module body be made of plastic. However, Mizuno discloses in Figure 11 a circuit board (element 26) disposed on a body (element 14), wherein the body is

Art Unit: 2871

made of plastic (Column 7, line 56). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to construct a liquid crystal module taught by Weindorf et al. with the plastic body taught by Mizuno since Mizuno teaches that by using a plastic body, it has an easiness in forming or shaping or mechanical processing (Column 7, lines 56-58).

Claims 5-6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al. (US 2002/0130985) in view of Kakuguchi et al. (US 2004/0254001).

Weindorf et al. disclose all of the limitations set forth in claims 1 and 11, but lacks to specify that the liquid crystal module can be used as a display of a mobile phone and a display of a personal digital assistant. However, Kakuguchi et al. disclose in Figure 1 a liquid crystal display screen (element 21), which is used on a mobile phone and further teaches that the same liquid crystal display screen can also be used on a personal digital assistant (Paragraph 0072). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the LCD module taught by Weindorf et al. into the electronic devices taught by Kakuguchi et al. so that having a liquid crystal display screen on a mobile phone or on a personal digital assistant would make it more convenient for the user to view the data within.

Art Unit: 2871

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Ying P. Chen whose telephone number is (571)272-8444. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

wpc

Wen-Ying P Chen
Examiner
Art Unit 2871


ROBERT H. KIM
SUPERVISORY PATENT EXAMINER
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